

METHOD FOR ASCERTAINING NETWORK BANDWIDTH
ALLOCATION POLICY ASSOCIATED WITH NETWORK ADDRESS

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ABSTRACT OF THE DISCLOSURE

A network comprises a local group of network workstations and clients that periodically need access to a wide area network like the Internet. A class-based queue traffic shaper is placed in between and enforces multiple service-level agreement policies on individual connection sessions by limiting the maximum data throughput for each connection. The class-based queue traffic shaper distinguishes amongst datapackets according to their respective source and/or destination IP-addresses. Which policy is appropriate to enforce is found by placing all IP-addresses with policies attached to them into an ordered list of three-byte segment numbers. The least significant byte of an IP-address is dropped to form a segment number.

Classification then depends on finding the IP-address in a datapacket to the ordered list of segment numbers. If a match occurs, an index lookup table for the respective segment allows the least-significant fourth byte of the IP-address to point to the bandwidth policy to use.